

Appendix D
Review Checklist for
Fixed Gauge Application

This checklist can be used by the Agency staff to review applications and the applicant can use it to check for completeness.

1.a.

1.a Legal Name and Street address of Applicant (Institution, Firm, Person, etc.)

Applicant Name: _____
Address: _____

City, State Zip +4: _____
Telephone #: _____
FAX #: _____
eMail Address: _____

1.b.

1.b Street address(es) at which Radioactive Material will be used. (If different than 1.a)

(1) Permanent Address: _____

City, State Zip+4: _____
(2) Temporary Job Sites Throughout Nebraska? ☐ Yes ☐ No

2.

2. Department to Use Radioactive Material

Person to Contact: _____
Telephone #: _____

3.

3. This is an application for:

☐ New License
☐ Amendment to License No. _____

☐ Renewal of License No. _____

Item Number and Title	Suggested Response	YES	NO	OTHER	
				YES	NO
4. Individual User(s)	“The radiation safety officer will maintain documentation of training for authorized users and his/her approval of the authorized user.”				
4.1 Training for Individual who in the Course of Employment Are Likely to Receive Occupational Doses of Radiation in Excess of 1 mSv (100 mrem) in a year (Occupationally Exposed workers) and Ancillary Personnel	“Will have a training program for individuals who in the course of employment are likely to receive occupational doses of radiation in excess of 1 mSv (100 mrem) in a year (occupationally exposed workers) and Ancillary personnel.”				
5. Radiation Safety Officer (RSO)	Radiation Safety Officer : _____ Name and Telephone Number _____				
	“The documentation for the training of the RSO are attached.”				
	“The RSO will perform the duties and responsibilities of a RSO per Appendix E of Regulatory Guide 3.13 ‘Radioactive Material- Guidance for Fixed Gauges Licenses.’ Or “Will provide alternate list of duties and responsibilities of the RSO per the criteria of Appendix E. And List is attached.				
6. Radioactive Material 6.a. Element and Mass Number 6b. Chemical and/or physical form 6c. Maximum amount to be possessed at any one time 6d. Authorized use AND Manufacturer and model number	List each radioisotope that will be used in each source in the gauging device(s). Identify the manufacturer and model number of each sealed source that will be used in the fixed gauging device. Confirm that each sealed source, device and source/device combination is registered as an approved sealed source or device in the Sealed Source and Device regulation issued by NRC or an Agreement State. Specify the maximum amount of radioactive material that will be in each sealed source. Confirm that the activity per source will not exceed the maximum activity listed on the approved Sealed Source and Device regulation issued by NRC or an Agreement State. Specify the purpose for the use of the gauging device. And Identify the manufacturer and model number of				

of the gauging device		the gauging device in which the sealed sources will be used.					
6.a. Element and Mass Number	6.b. Chemical or Physical form (Make and Model if sealed source)	6.c. Maximum Activity Requested (Expressed as Curies, Millicuries or Microcuries)	6.d. Use of Each Form (If sealed source, also give Make and Model Number of the storage and/or device in which sealed source will be stored and/or used)	Specify other uses not listed on SSD Certificate	YES	NO	
Cobalt-60	Sealed sources manufacturer or distributor and model number: Device manufacturer or distributor and model number: 	Not to exceed maximum activity per source as specified in Sealed Source and Device Registration Sheet	Specific description of gauge in use:	[] Not applicable [] Uses are:			
Krypton-85	Sealed sources manufacturer or distributor and model number: Device manufacturer or distributor and model number: 	Not to exceed maximum activity per source as specified in Sealed Source and Device Registration Sheet	Specific description of gauge in use:	Specific description of gauge in use:			
Strontium-90	Sealed sources manufacturer or distributor and model number: Device manufacturer or distributor and model number: 	Not to exceed maximum activity per source as specified in Sealed Source and Device Registration Sheet	Specific description of gauge in use:	Specific description of gauge in use:			
Cesium-137	Sealed sources manufacturer or distributor and model number: Device manufacturer or distributor and model number: 	Not to exceed maximum activity per source as specified in Sealed Source and Device Registration Sheet	Specific description of gauge in use:	Specific description of gauge in use:			

Americium-241	Sealed sources manufacturer or distributor and model number: Device manufacturer or distributor and model number: 	Not to exceed maximum activity per source as specified in Sealed Source and Device Registration Sheet	Specific description of gauge in use:	Specific description of gauge in use:		
Other Isotope (Specify)	Sealed sources manufacturer or distributor and model number: Device manufacturer or distributor and model number: 	Not to exceed maximum activity per source as specified in Sealed Source and Device Registration Sheet	Specific description of gauge in use:	Specific description of gauge in use:		
<i>FINANCIAL ASSURANCE REQUIRED AND EVIDENCE OF FINANCIAL ASSURANCE PROVIDED</i>						

Item Number and Title	Suggested Response	APPLICANT'S RESPONSE			
		YES	NO	OTHER	
				YES	NO
7. Training of Individuals in Item 4. And 5. 8. Experience with Radiation of Individuals in Item 4. And 5.	<p>“Authorized users and the radiation safety officer will demonstrated competency in use, maintenance and transfer of the device(s) by satisfactory completion eight(8) hour course</p> <p>-provided by the manufacturer of the gauge Or -agency approved course.”</p> <p>Note: See Appendix I for course criteria</p> <p>Note: The licensee will need to maintain training records on file for each authorized user and will maintain records showing the approval by the RSO of the authorized users. This will be reviewed at the time of inspection.</p> <p>See Appendix S for sample record retention schedule.</p>				

Item Number and Title	Suggested Response	APPLICANT'S RESPONSE			
		YES	NO	OTHER	
				YES	NO
9. Radiation Detection Instruments	<p>"We will possess and use a radiation survey meter that meets the criteria in the section entitled 'Radiation Detection Instruments' in Regulatory Guide 3.13, 'Radioactive Material – Guidance for Fixed Gauges Licenses' in the event of an incident "</p> <p style="text-align: center;">Or</p> <p>"We have access to a radiation survey meter that meets the criteria in the section entitled 'Radiation Detection Instruments' in Regulatory Guide 3.13, 'Radioactive Material –Guidance for Fixed Gauges' in the event of an incident "</p> <p>Have a plan of how an instrument will be obtained.</p>				
10. Calibration of Instruments Listed in Item 10 a. Calibrated by Service Company	<p>"We will possess a survey meter and will have the instrument calibrated annually. The calibration service company's, name, address, license number and the state or federal agency that issued the company's license is provided below."</p> <p>Name_____</p> <p>Address_____</p> <p>_____</p> <p>License number_____</p> <p>Issuing Agency_____</p> <p style="text-align: center;">Or</p>				
10.. Calibration of Instruments Listed in Item 10 b. Calibrated by Applicant	<p>"We will calibrate the survey instruments in-house annually. We have submit detailed information describing the facilities, equipment, personnel, and procedures to be used to perform the calibrations."</p> <p>Note: Contact the Agency for criteria for in house calibrations.</p> <p style="text-align: center;">Or</p> <p>NA if you plan to access a survey meter.</p>				

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		YES	NO	OTHER	
				YES	NO
11. Personnel Monitoring Devices	<p>" We will provide dosimetry processed and evaluated by a NVLAP approved processor that is exchanged at a frequency recommended by the processor."</p> <p>"We will be using the following type: <input type="checkbox"/> Film Badge <input type="checkbox"/> TLD <input type="checkbox"/> OSL <input type="checkbox"/> Other (Specify)</p> <p>_____</p> <p>The supplier is:</p> <p>_____</p> <p>The exchange frequency is: <input type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Other (Specify)</p> <p>_____</p> <p>"</p> <p style="text-align: center;">Or</p> <p>"We will maintain, for inspection by the Agency, documentation demonstrating that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10 percent of the allowable limits of 180 NAC 4"</p> <p>Note: See Appendix M for guidance on demonstrating that unmonitored individuals are not likely to exceed 10 percent of the allowable limits.</p>				
12. Facilities and Equipment	<ul style="list-style-type: none"> "A diagram of the facility showing the location of each fixed gauge is attached. We will ensure that the location of each fixed gauge meets the criteria in the section entitled 'Facilities and Equipment' Instruments' in "Radioactive Material Guidance for Fixed Gauge Licenses," Regulatory Guide 3.13 (Rev.2), <p style="text-align: center;">Or</p> <ul style="list-style-type: none"> "A diagram of the facility showing the location of each fixed gauge is attached." Confirm that the fixed gauge is secured to prevent unauthorized removal or access; and submit specific information demonstrating that the proposed conditions will not impact the safety or integrity of the source or device. Address any instances where the proposed conditions exceed any conditions listed in the SSD Registration Certificate. <p>Note:</p> <ul style="list-style-type: none"> Any deviations from an SSD Registration Certificate will require specific Agency approval. Alternative responses will be evaluated using the criteria listed above. 				

Item Number and Title	Suggested Response	APPLICANT'S RESPONSE			
		YES	NO	OTHER	
				YES	NO
13. Radiation Protection Program 13.a. Operating and Emergency Procedures	<p>“We have implemented and will maintain operating and emergency procedures in Appendix F Regulatory Guide 3.13 “Radioactive Material Guidance for Fixed Gauges Licenses.” “Copies of these procedures will be provided to all authorized users and at each job site.”</p> <p>(A copy of these Operating and Emergency Procedures will be copied from Regulatory Guide 3.4. The information to individualize the procedure will be completed.)</p> <p style="text-align: center;">Or</p> <p>“We have implemented and will maintain operating and emergency procedures submitted with this application. They met the criteria of section titled Radiation Protection Program – Operating and Emergency Procedures in Regulatory Guide 3.13 “Radioactive Material Guidance for Fixed Gauges Licenses.”. Copies of these procedures will be provided to all authorized users and at each job site.”</p>				

Item Number and Title	Suggested Response	APPLICANT'S RESPONSE			
		YES	NO	OTHER	
				YES	NO
13. Radiation Protection Program 13.b. Leak Tests	<p>“Leak tests will be performed at intervals approved by the Agency, an Agreement State, or the U.S. Nuclear Regulatory Commission and specified in the Sealed Source and Device Registration Sheet.”</p> <hr/> <p>“Leak tests will be performed by an organization authorized by the Agency, an Agreement State or the U.S. Nuclear Regulatory Commission to provide leak testing services for other licensees and/or using a leak test kit supplied by an organization authorized by the Agency, an Agreement State or U.S. Nuclear Regulatory Commission to provide leak test kits to other licensees and according to the kit supplier's instructions.”</p> <p>Name of licensee and license number performing maintenance:</p> <hr/> <p style="text-align: center;">And/Or</p> <p>Supplier of leak test kit, model number of kit, and suppliers address.Or</p> <p>“The licensee may be authorized to conduct the leak test and analysis by the Agency.”</p> <p>The licensee will be required to provide the following to support a request to conduct the leak test and analysis.</p> <ul style="list-style-type: none"> Identify the individual who will make the analysis and provide his or her qualifications to make quantitative measurements of radioactivity. Commit to performing leak testing at the frequency specified in the appropriate SSD Registration Certificate. Specify how and where test samples will be taken on the gauge. Describe materials used and methods of handling samples to prevent or minimize exposure to personnel. Specify the type of instrument(s) that will be used for measurement, the counting efficiency, and minimum levels of detection for each radionuclide to be measured. <p>Note: An instrument capable of making quantitative measurements should be used; hand-held survey meters will not normally be considered adequate for measurements.</p> <ul style="list-style-type: none"> Specify the standard sources used to calibrate the instrument; for each, specify the radionuclide, quantity, accuracy, and traceability to primary radiation standards. <p>Note: Accuracy of standards should be within $\pm 5\%$ of the stated value and traceable to a primary radiation standard such as those maintained by the National Institutes of Standards and Technology (NIST).</p>				

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		YES	NO	OTHER	
				YES	NO
13.Radiation Protection Program 13c. Maintenance	<u>ROUTINE CLEANING & LUBRICATION</u> “We will implement and maintain procedures for routine maintenance of our gauges according to each manufacturer’s recommendations and instructions.”				
	<u>NON-ROUTINE MAINTENANCE</u> “We will send the gauge to the manufacturer or other person authorized by the NRC or an Agreement State to perform non-routine maintenance or repair operations that require the removal of the source or source rod from the gauge.” Or “We will provide needed information to support request to perform non-routine maintenance per Appendix P of Regulatory Guide 3.13 “Radioactive Material Guidance for Fixed Gauges Licenses.”				
13. Radiation Protection Program 13d. Transportation	The applicant is <u>not</u> required to submit a response to the public dose section during the licensing phase. This matter will be examined during an inspection.	Need not be submitted with application			
13.Radiation Protection Program 13.e. Fixed Gauges Used at Temporary Job Site	We will not use fixed gauges at temporary job sites." Or "Procedures for use of fixed gauges at temporary job sites have been developed, implemented, maintained, and distributed and will meet the Criteria in the section entitled 'Fixed Gauges Used at Temporary Job Sites,' in Regulatory Guide 3.14, 'Radioactive Material Guidance for Fixed Gauge Licenses'" and copies of these procedures will be provided to all gauge users." Or Alternative procedures for use of fixed gauges at temporary job sites. <i>Note:</i> Alternative procedures will be evaluated using the criteria listed above..				
13.Radiation Protection Program 13.f. Audit Program	“We will have an audit program.” Note: See Appendix S for a sample audit program. The audit program will be reviewed during an inspection <i>Note:</i> Alternative procedures will be evaluated using the criteria listed above. .				

13.Radiation Protection Program 13.g. Material Receipt and Accountability	<p>"Physical inventories will be conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under the license." Note: See Appendix T for a inventory procedure and sample inventory form. These items will be reviewed during an inspection.</p> <p style="text-align: center;">Or</p> <p>A description of the frequency and procedures for ensuring that no gauge has been lost, stolen, or misplaced and that, if the licensee possesses gauges exceeding threshold amounts, the licensee complies with financial assurance requirements in 180 NAC 3-018.</p>				
13. Radiation Protection Program 13h. Public Dose	<p>The applicant is not required to submit a response to the public dose section during the licensing phase. This matter will be examined during an inspection.</p>	<p>Need not be submitted with application.</p>			
14. Waste Disposal	<p>State that disposal will be by transfer of the radioactive material to a licensee specifically authorized to possess it.</p>	<p>Need not be submitted with application</p>			
15. Certification	<p>Signed by representative authorized to make binding commitments..</p>	<p>Item 15 needs to be signed on NRH 5.</p>			